

## AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions of claims in the application.

### Listing of Claims:

1. (Currently Amended) A method for the identification of a human subject having Alzheimer's disease responsive to treatment with a cholinomimetic drug, said method comprising determining whether said subject is a carrier one or more apoE4 gene alleles, wherein a determination that said subject is a carrier of one or more apoE4 gene alleles identifies said subject as one whose Alzheimer's disease-related cognitive impairment is less responsive to treatment with a cholinomimetic drug or a determination that said subject is not a carrier of one or more apoE4 gene alleles identifies said subject as one whose Alzheimer's disease-related cognitive impairment is responsive to treatment with a cholinomimetic drug ~~the apoE allele load of said subject, wherein the absence of apoE4 gene allele in a biological sample of said subject identifies said subject as a subject whose Alzheimer's disease-related cognitive impairment is responsive to treatment with a cholinomimetic drug.~~
2. (Currently Amended) The method of claim 1, wherein said method further comprises administering to said subject determined to have having an absence of one or more apoE4 alleles ~~allele~~ a therapeutically effective amount of a cholinomimetic drug.
3. (Original) The method of claim 2, wherein administration of the cholinomimetic drug improves cognitive performance.

4. (Currently Amended) A method for identifying a patient diagnosed with a cognitive impairment for participation in a clinical trial of a drug for the treatment of said cognitive impairment, said method comprising:

- (a) identifying a patient as already diagnosed with said cognitive impairment or as being predisposed to acquire or to be at risk for said cognitive impairment; and
- (b) determining whether said subject is a carrier one or more apoE4 gene alleles, wherein a determination that said subject is a carrier of one or more apoE4 gene alleles identifies said subject as one who is not a desired candidate for participation in a clinical trial of a drug for the treatment of said cognitive impairment or a determination that said subject is not a carrier of one or more apoE4 gene alleles identifies said subject as one who is a desired candidate for participation in a clinical trial of a drug for the treatment of said cognitive impairment ~~the apoE allele load of said patient, wherein absence of apoE4 gene allele indicates said patient is a desired candidate for participation in a clinical trial of a drug for the treatment of said cognitive impairment.~~

5. (Currently Amended) A method for identifying a patient diagnosed with Alzheimer's disease for participation in a clinical trial of a drug for the treatment of Alzheimer's disease, said method comprising:

- (a) identifying a patient as already diagnosed with Alzheimer's disease or as being predisposed to acquire or to be at risk for Alzheimer's disease; and
- (b) determining whether said subject is a carrier one or more apoE4 gene alleles, wherein a determination that said subject is a carrier of one or more apoE4 gene alleles identifies said subject as one who is not a desired candidate for participation in a clinical trial of a drug for the treatment of

Alzheimer's disease or a determination that said subject is not a carrier of one or more apoE4 gene alleles identifies said subject as one who is a desired candidate for participation in a clinical trial of a drug for the treatment of Alzheimer's disease ~~the apoE allele load of said patient, wherein absence of apoE4 gene allele indicates said patient is a desired candidate for participation in a clinical trial of a drug for the treatment of Alzheimer's disease.~~

6-7 (Cancelled)

8. (Previously Presented) The method of claims 1, 2, 3, 4, or 5 wherein said drug is tacrine.

9. (Previously Presented) The method of claims 1, 4, or 5 wherein determining the apoE allele load is by genotyping.